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<110> Horvitz, H. Robert
Ranganathan, Rajesh

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 <213> Caenorhabditis elegans

<400> 9

Met	Leu	Arg	Trp	His	Ser	Val	Arg	Arg	Lys	Gln	His	Gln	Gln	Leu	Gln
1				5					10					15	
Ala	Glu	Leu	Ser	Ser	Gly	Ala	Ala	Ser	Met	Leu	Ser	Ala	Pro	Glu	Ser
			20					25					30		
Arg	Arg	Val	Ser	Arg	Ser	Met	Ser	Val	Lys	Ala	Pro	Thr	Ala	Ser	Glu
		35				40						45			
Tyr	Met	Pro	Leu	Ser	Val	Ala	Asp	Lys	Pro	Leu	Thr	Leu	Thr	Val	Ser
	50				55						60				
Thr	Ser	His	Ser	Ile	Asp	Pro	Asn	Glu	Pro	Ile	Ala	Ala	Leu	Gly	Gly
65				70						75					80
Leu	Thr	Pro	Thr	Lys	Glu	Gly	Arg	Val	Ala	Ala	Leu	Arg	Arg	Arg	Ser
				85					90					95	
Ser	Met	Val	Arg	Asp	Lys	Trp	Ala	Thr	Lys	Met	Glu	Phe	Leu	Leu	Ala
			100					105					110		
Val	Val	Gly	Tyr	Ala	Val	Asp	Leu	Gly	Asn	Ile	Trp	Arg	Phe	Pro	Ser
		115					120					125			
Val	Cys	Tyr	Lys	His	Gly	Gly	Gly	Ala	Phe	Leu	Ile	Pro	Tyr	Phe	Ile
	130				135						140				
Met	Leu	Met	Ile	Gly	Gly	Leu	Pro	Met	Phe	Tyr	Met	Glu	Leu	Val	Leu
145				150						155					160
Gly	Gln	Phe	His	Arg	Ser	Gly	Cys	Val	Ser	Ile	Trp	Arg	Lys	Val	Cys
				165					170					175	
Pro	Leu	Phe	Arg	Gly	Ile	Gly	Tyr	Gly	Ile	Cys	Cys	Ile	Cys	Thr	Phe
			180					185					190		
Ile	Ala	Ile	Phe	Tyr	Asn	Ala	Ile	Ile	Ala	Gln	Ala	Val	Tyr	Phe	Ala
		195					200					205			
Ile	Val	Ser	Leu	Ser	Lys	Ile	Trp	Asp	Ser	Glu	Val	Pro	Trp	Ala	Ser
	210				215						220				
Cys	Gly	Asn	Pro	Trp	Asn	Thr	Pro	Arg	Cys	Ser	Asp	Asp	Leu	Asn	Val
225					230					235					240
Thr	Ile	Ser	Arg	Asn	Gly	Thr	Pro	Leu	Thr	Thr	Pro	Ser	Glu	Glu	Tyr
				245					250					255	
Tyr	Leu	Tyr	Lys	Val	Leu	Glu	Val	Gln	Lys	Ser	Thr	Gly	Phe	Asp	Asp
			260					265					270		
Leu	Gly	Gly	Val	Lys	Thr	Ser	Met	Ala	Val	Cys	Leu	Leu	Ala	Val	Phe
		275					280					285			
Ile	Met	Val	Tyr	Phe	Ala	Leu	Trp	Lys	Gly	Pro	Gln	Ser	Ser	Gly	Lys
	290				295						300				
Ile	Val	Trp	Val	Thr	Ala	Thr	Ala	Pro	Tyr	Ile	Ile	Leu	Ser	Ile	Leu
305					310					315					320
Leu	Ile	Arg	Gly	Leu	Leu	Pro	Gly	Ala	Lys	Asn	Gly	Leu	Tyr	Tyr	
				325				330					335		
Tyr	Val	Thr	Pro	Asp	Phe	Glu	Lys	Leu	Lys	Asp	Pro	Ala	Val	Trp	Ser
			340					345					350		
Ala	Ala	Ala	Thr	Gln	Ile	Phe	Phe	Ser	Leu	Gly	Pro	Gly	Phe	Gly	Val
		355					360					365			
Leu	Leu	Ala	Leu	Ser	Ser	Tyr	Asn	Asp	Phe	Asn	Asn	Asn	Cys	Tyr	Arg
	370					375					380				
Asp	Ala	Val	Thr	Ile	Ser	Ile	Ile	Asn	Cys	Ala	Thr	Ser	Phe	Phe	Ser
385					390					395					400
Gly	Cys	Val	Val	Phe	Ser	Thr	Leu	Gly	Tyr	Met	Ser	Leu	Leu	Thr	Asn
				405				410						415	
Lys	Pro	Ile	Asn	Glu											
			420												

<210> 10
 <211> 630
 <212> PRT

<213> Homo sapiens

<400> 10

Met Glu Thr Thr Pro Leu Asn Ser Gln Lys Gln Leu Ser Ala Cys Glu
1 5 10 15
Asp Gly Glu Asp Cys Gln Glu Asn Gly Val Leu Gln Lys Val Val Pro
20 25 30
Thr Pro Gly Asp Lys Val Glu Ser Gly Gln Ile Ser Asn Gly Tyr Ser
35 40 45
Ala Val Pro Ser Pro Gly Ala Gly Asp Asp Thr Arg His Ser Ile Pro
50 55 60
Ala Thr Thr Thr Thr Leu Val Ala Glu Leu His Gln Gly Glu Arg Glu
65 70 75 80
Thr Trp Gly Lys Lys Val Asp Phe Leu Leu Ser Val Ile Gly Tyr Ala
85 90 95
Val Asp Leu Gly Asn Val Trp Arg Phe Pro Tyr Ile Cys Tyr Gln Asn
100 105 110
Gly Gly Gly Ala Phe Leu Leu Pro Tyr Thr Ile Met Ala Ile Phe Gly
115 120 125
Gly Ile Pro Leu Phe Tyr Met Glu Leu Ala Leu Gly Gln Tyr His Arg
130 135 140
Asn Gly Cys Ile Ser Ile Trp Arg Lys Ile Cys Pro Ile Phe Lys Gly
145 150 155 160
Ile Gly Tyr Ala Ile Cys Ile Ile Ala Phe Tyr Ile Ala Ser Tyr Tyr
165 170 175
Asn Thr Ile Met Ala Trp Ala Leu Tyr Tyr Leu Ile Ser Ser Phe Thr
180 185 190
Asp Gln Leu Pro Trp Thr Ser Cys Lys Asn Ser Trp Asn Thr Gly Asn
195 200 205
Cys Thr Asn Tyr Phe Ser Glu Asp Asn Ile Thr Trp Thr Leu His Ser
210 215 220
Thr Ser Pro Ala Glu Glu Phe Tyr Thr Arg His Val Leu Gln Ile His
225 230 235 240
Arg Ser Lys Gly Leu Gln Asp Leu Gly Gly Ile Ser Trp Gln Leu Ala
245 250 255
Leu Cys Ile Met Leu Ile Phe Thr Val Ile Tyr Phe Ser Ile Trp Lys
260 265 270
Gly Val Lys Thr Ser Gly Lys Val Val Trp Val Thr Ala Thr Phe Pro
275 280 285
Tyr Ile Ile Leu Ser Val Leu Leu Val Arg Gly Ala Thr Leu Pro Gly
290 295 300
Ala Trp Arg Gly Val Leu Phe Tyr Leu Lys Pro Asn Trp Gln Lys Leu
305 310 315 320
Leu Glu Thr Gly Val Trp Ile Asp Ala Ala Ala Gln Ile Phe Phe Ser
325 330 335
Leu Gly Pro Gly Phe Gly Val Leu Leu Ala Phe Ala Ser Tyr Asn Lys
340 345 350
Phe Asn Asn Asn Cys Tyr Gln Asp Ala Leu Val Thr Ser Val Val Asn
355 360 365
Cys Met Thr Ser Phe Val Ser Gly Phe Val Ile Phe Thr Val Leu Gly
370 375 380
Tyr Met Ala Glu Met Arg Asn Glu Asp Val Ser Glu Val Ala Lys Asp
385 390 395 400
Ala Gly Pro Ser Leu Leu Phe Ile Thr Tyr Ala Glu Ala Ile Ala Asn
405 410 415
Met Pro Ala Ser Thr Phe Phe Ala Ile Ile Phe Phe Leu Met Leu Ile
420 425 430
Thr Leu Gly Leu Asp Ser Thr Phe Ala Gly Leu Glu Gly Val Ile Thr
435 440 445

Ala Val Leu Asp Glu Phe Pro His Val Trp Ala Lys Arg Arg Glu Arg
 450 455 460
 Phe Val Leu Ala Val Val Ile Thr Cys Phe Phe Gly Ser Leu Val Thr
 465 470 475 480
 Leu Thr Phe Gly Gly Ala Tyr Val Val Lys Leu Leu Glu Glu Tyr Ala
 485 490 495
 Thr Gly Pro Ala Val Leu Thr Val Ala Leu Ile Glu Ala Val Ala Val
 500 505 510
 Ser Trp Phe Tyr Gly Ile Thr Gln Phe Cys Arg Asp Val Lys Glu Met
 515 520 525
 Leu Gly Phe Ser Pro Gly Trp Phe Trp Arg Ile Cys Trp Val Ala Ile
 530 535 540
 Ser Pro Leu Phe Leu Leu Phe Ile Ile Cys Ser Phe Leu Met Ser Pro
 545 550 555 560
 Pro Gln Leu Arg Leu Phe Gln Tyr Asn Tyr Pro Tyr Trp Ser Ile Ile
 565 570 575
 Leu Gly Tyr Cys Ile Gly Thr Ser Ser Phe Ile Cys Ile Pro Thr Tyr
 580 585 590
 Ile Ala Tyr Arg Leu Ile Ile Thr Pro Gly Thr Phe Lys Glu Arg Ile
 595 600 605
 Ile Lys Ser Ile Thr Pro Glu Thr Pro Thr Glu Ile Pro Cys Gly Asp
 610 615 620
 Ile Arg Leu Asn Ala Val
 625 630

<210> 11
 <211> 622
 <212> PRT
 <213> Drosophila melanogaster

<400> 11
 Met Asp Arg Ser Gly Ser Ser Asp Phe Ala Gly Ala Ala Ala Thr Thr
 1 5 10 15
 Gly Arg Ser Asn Pro Ala Pro Trp Ser Asp Asp Lys Glu Ser Pro Asn
 20 25 30
 Asn Glu Asp Asp Ser Asn Glu Asp Asp Gly Asp His Thr Thr Pro Ala
 35 40 45
 Lys Val Thr Asp Pro Leu Ala Pro Lys Leu Ala Asn Asn Glu Arg Ile
 50 55 60
 Leu Val Val Ser Val Thr Glu Arg Thr Arg Glu Thr Trp Gly Gln Lys
 65 70 75 80
 Ala Glu Phe Leu Leu Ala Val Ile Gly Phe Ala Val Asp Leu Gly Asn
 85 90 95
 Val Trp Arg Phe Pro Tyr Ile Cys Tyr Gln Asn Gly Gly Gly Ala Phe
 100 105 110
 Leu Val Pro Tyr Cys Leu Phe Leu Ile Phe Gly Gly Leu Pro Leu Phe
 115 120 125
 Tyr Met Glu Leu Ala Leu Gly Gln Phe His Arg Cys Gly Cys Leu Ser
 130 135 140
 Ile Trp Lys Arg Ile Cys Pro Ala Leu Lys Gly Val Gly Tyr Ala Ile
 145 150 155 160
 Cys Leu Ile Asp Ile Tyr Met Gly Met Tyr Tyr Asn Thr Ile Ile Gly
 165 170 175
 Trp Ala Val Tyr Tyr Leu Phe Ala Ser Phe Thr Ser Lys Leu Pro Trp
 180 185 190
 Thr Ser Cys Asp Asn Pro Trp Asn Thr Glu Asn Cys Met Gln Val Thr
 195 200 205
 Ser Glu Asn Phe Thr Glu Leu Ala Thr Ser Pro Ala Lys Glu Phe Phe

210		215		220
Glu Arg Lys Val Leu Glu Ser Tyr Lys Gly Asn Gly Leu Asp Phe Met				
225		230		235
Gly Pro Val Lys Pro Thr Leu Ala Leu Cys Val Phe Gly Val Phe Val				240
		245		250
Leu Val Tyr Phe Ser Leu Trp Lys Gly Val Arg Ser Ala Gly Lys Val				255
		260		265
Val Trp Val Thr Ala Leu Ala Pro Tyr Val Val Leu Ile Ile Leu Leu				270
		275		280
Val Arg Gly Val Ser Leu Pro Gly Ala Asp Glu Gly Ile Lys Tyr Tyr				285
		290		295
Leu Thr Pro Glu Trp His Lys Leu Lys Asn Ser Lys Val Trp Ile Asp				300
305		310		315
Ala Ala Ser Gln Ile Phe Phe Ser Leu Gly Pro Gly Phe Gly Thr Leu				320
		325		330
Leu Ala Leu Ser Tyr Asn Lys Phe Asn Asn Asn Cys Tyr Arg Asp				335
		340		345
Ala Leu Ile Thr Ser Ser Ile Asn Cys Leu Thr Ser Phe Leu Ala Gly				350
		355		360
Phe Val Ile Phe Ser Val Leu Gly Tyr Met Ala Tyr Val Gln Lys Thr				365
		370		375
Ser Ile Asp Lys Val Gly Leu Glu Gly Pro Gly Leu Val Phe Ile Val				380
385		390		395
Tyr Pro Glu Ala Ile Ala Thr Met Ser Gly Ser Val Phe Trp Ser Ile				400
		405		410
Ile Phe Phe Leu Met Leu Ile Thr Leu Gly Leu Asp Ser Thr Phe Gly				415
		420		425
Gly Leu Glu Ala Met Ile Thr Ala Leu Cys Asp Glu Tyr Pro Arg Val				430
		435		440
Ile Gly Arg Arg Arg Glu Leu Phe Val Leu Leu Leu Leu Ala Phe Ile				445
		450		455
Phe Leu Cys Ala Leu Pro Thr Met Thr Tyr Gly Gly Val Val Leu Val				460
465		470		475
Asn Phe Leu Asn Val Tyr Gly Pro Gly Leu Ala Ile Leu Phe Val Val				480
		485		490
Phe Val Glu Ala Ala Gly Val Phe Trp Phe Tyr Gly Val Asp Arg Phe				495
		500		505
Ser Ser Asp Val Glu Gln Met Leu Gly Ser Lys Pro Gly Leu Phe Trp				510
		515		520
Arg Ile Cys Trp Thr Tyr Ile Ser Pro Val Phe Leu Leu Thr Ile Phe				525
		530		535
Ile Phe Ser Ile Met Gly Tyr Lys Glu Met Leu Gly Glu Glu Tyr Tyr				540
545		550		555
Tyr Pro Asp Trp Ser Tyr Gln Val Gly Trp Ala Val Thr Cys Ser Ser				560
		565		570
Val Leu Cys Ile Pro Met Tyr Ile Ile Tyr Lys Phe Phe Phe Ala Ser				575
		580		585
Lys Gly Gly Cys Arg Gln Arg Leu Gln Glu Ser Phe Gln Pro Glu Asp				590
		595		600
Asn Cys Gly Ser Val Val Pro Gly Gln Gln Gly Thr Ser Val				605
610		615		620